

# Notice of Allowability

Application No.

09/541,390

Examiner

Liang-che Alex Wang

Applicant(s)

SPANGLER ET AL.

Art Unit

2155

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/13/05.
2. ☒ The allowed claim(s) is/are 1,3,5,7,8,10,12,14,15,17 and 19.
3. ☒ The drawings filed on 3/03/2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

HOSAIN ALAM

SUPERVISORY PATENT EXAMINER

***EXAMINER'S AMENDMENT***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Drawings filed on 3/13/2000 and drawing changes filed 3/03/2003 are acceptable by the Examiner, however, a **formal drawing** is required.
3. Authorization for this examiner's amendment was given in a telephone interview with Kevin A. Reif on 03/23/2004.
4. The application has been amended as follow:
  1. (Currently Amended). A method comprising:

determining in real time whether information guaranteed a fixed amount of bandwidth for a fixed length of time broadcast digitally is actually utilizing all bandwidth previously allocated to broadcasting the information;

if not, broadcasting additional information using an unused portion of the previously allocated bandwidth;

limiting the amount of additional information to a preset percentage of the total available bandwidth,

wherein said broadcasting of a portion of the additional information is stopped when the preset percentage is reached; and

determining in real-time whether there is any unallocated bandwidth; and,  
if there is unallocated bandwidth with respect to a particular timeframe,  
broadcasting supplementary information to occupy at least a portion of the  
unallocated bandwidth during the particular timeframe.

2. (Cancelled).

3. (Original)     The method of claim 1 including determining in real-time whether additional information can be broadcast over a portion of the previously allocated bandwidth that is actually unused.

4 (Cancelled).

5. (Previously Amended)     The method of claim 1 wherein said broadcasting the portion of the additional information to be stopped is selected based upon at least one of content provider, bandwidth range and sequence of content provision.

6. (cancelled)

7. (Currently Amended) The method of claim 6 1 including determining in advance of the particular timeframe whether the supplementary information can be broadcast over the unallocated bandwidth.

8. (Currently Amended) A digital communication system comprising:  
  
an automated management system that controls scheduling of digital broadcasts, and is configured to determine in real time whether information guaranteed a fixed amount of bandwidth for a fixed length of time broadcast actually utilizes all bandwidth previously allocated to broadcasting the information, and if not, to broadcast additional information using an unused portion of the previously allocated bandwidth,

wherein the automated management system is configured to limit the amount of additional information to a preset percentage of the total available bandwidth,

wherein the automated management system is configured to stop the broadcast of a portion of the additional information when the preset percentage is reached,

wherein the automated management system is configured to determine whether there is any unallocated bandwidth; and, if there is unallocated bandwidth with respect to a particular timeframe, the system is configured to broadcast

supplementary information to occupy at least a portion of the unallocated bandwidth during the particular timeframe.

9. (Cancelled).

10. (Original) The digital communication system of claim 8 wherein the automated management system is configured to determine whether additional information can be broadcast over a portion of the previously allocated bandwidth that is actually unused.

11 (Cancelled).

12. (Previously Amended) The digital communication system of claim 8 wherein the system is configured to select the portion of the additional information to be stopped based on at least one of content provider, bandwidth range, and sequence of content provision.

13. (Cancelled)

14. (Currently Amended)      The digital communication system of claim ~~13~~ 8 wherein the automated management system is configured to determine in advance of the particular timeframe whether the supplementary information can be broadcast over the unallocated bandwidth.

15. (Previously Amended)      An article comprising a computer-readable medium which stores computer-executable instructions for causing a computer system to:

determine in real time whether information guaranteed a fixed amount of bandwidth for a fixed length of time broadcast over a digital network is actually utilizing all bandwidth previously allocated to broadcasting the information;

if not, broadcast additional information using an unused portion of the previously allocated bandwidth;

limit the amount of additional information to a preset percentage of the available bandwidth; and

stop broadcasting a portion of additional information when the preset percentage is reached; and

determine in real-time whether there is any unallocated bandwidth; and, if there is unallocated bandwidth with respect to a particular timeframe, broadcasting supplementary information to occupy at least a portion of the unallocated bandwidth during the particular timeframe.

16 (Cancelled).

17. (Original) The article of claim 15 which further stores instructions that cause the computer system to determine whether additional information can be broadcast over a portion of the previously allocated bandwidth that is actually unused.

18 (Cancelled).

19. (Previously Amended) The article of claim 15 which further stores instructions that cause a computer to stop broadcasting a portion of the additional information and wherein the portion of the additional information is selected based on at least one of content provider, bandwidth range and sequence of content provision.

20. (Cancelled)

21-24. (Cancelled).

*Reason for allowance*

5. The following is an examiner's statement of reasons for allowance: the prior art of record does not teach or suggest, individually or in combination, a method, determining in real time whether information guaranteed a fixed amount of bandwidth for a fixed length of time broadcast digitally is actually fully utilizing all bandwidth previously allocated to broadcasting the information and if not, broadcast additional information until a preset percentage to be reached by using the unused portion of the previously allocated bandwidth, and determining in real-time whether there is any unallocated bandwidth respect to a particular timeframe, broadcast supplementary information to occupy at least a portion of the unallocated bandwidth during the particular time frame.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liang-che Alex Wang whose telephone number is (571)272-3992. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)..

Liang-che Alex Wang *LW*  
March 23, 2005

*Hosain Alam*  
**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**